Abstract

A method of fabricating a dental restoration comprising providing a framework possessing a coefficient of thermal expansion of as high as about 18 x 10^{-6}/°C; and using a dental porcelain composition comprising a leucite crystallite phase dispersed in a feldspathic glass matrix to theamework to provide a smooth, non-abrasive surface thereon, wherein the fused dental porcelain composition having a maturing temperature in the range from about 750° to about 1050° C., a coefficient of thermal expansion (room temperature to 450° C.) of from about 12 x 10^{-6}/°C. to about 17.5 x 10^{-6}/°C., and comprising:

Component	Amount (wt. %)
SiO_2	57-66
Al_2O_3	7-15
K_2O	7-15
Na_2O	7-12
Li_2O	0.5-3

and further comprising a dispersed leucite crystallite phase representing from about 5 to about 65 weight percent of the dental porcelain, and wherein the leucite crystallites possess diameters not exceeding about 10 microns.